Copycat firesetting: Bridging two research areas

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Copycat Firesetting: Bridging two research areas

Deliberate firesetting costs our community in destruction to property and lives. Public concern heightens when similar fires occur in a series, raising the spectre of copycat firesetting. Difficulties associated with researching copycat crimes in general mean that not a lot is known about copycat firesetting. As an initial step toward filling this research gap, we explore connections between research on copycat crime and research into deliberate firesetting. The intention is to extract salient features from what is known about the phenomena of deliberate firesetting and copycat crime, map them together, and point out shared and unique characteristics. It is argued that a "copycat firesetter" is likely to exist as a distinct sub-group and which potentially requires targeted interventions.

Keywords: arson; firesetting; copycat

The phenomenon of copycat firesetting has been popularly acknowledged for at least a half a century (Dressler, 1961, p. 42) and recent waves of bushfires in Australia, and "wild-fires" in the United States, Greece, and Russia have shown their destructive power. As a substantial proportion of these fires are believed to be acts of deliberate unlawful firesetting (FEMA, 2003; NSWFB, 2003), the importance of understanding the dynamics of imitative firesetting is clear.

Why media representations would be likely to influence criminal behaviour is related to the role that crime models play in the production of criminality. Criminologists who have explored the modeling of criminal behaviour have traditionally focused on the impact of real world crime models (see for example Akers, 1998; Sutherland, 1947; Tarde, 1912). The availability of real world crime models in the form of delinquent peers and criminogenic family members has been noted as a strong predictor of juvenile delinquency and empirical tests of social learning theory based on real world crime models have generally done well (see Pratt, Cullen, Sellers, Winfree, Madensen, Daigle, Fearn & Gau, [2010] for a review). Unlike the impact of real world models, the importance of media provided crime models for criminality has not received close investigation but a growing set of anecdotal reports of copycat crimes, time series empirical studies of increases in suicide rates following media reports of celebrity suicides, studies of exposure to violent media and subsequent aggressive behaviours, and surveys of offenders regarding their copycat histories have established the reality of a media generated copycat crime phenomena (see Surette, 2011 for a review). Extrapolated to firesetting, the general implication of this body of research is that fire-related media content likely does not cause anyone to become a firesetter, but exposure to such content is hypothesized to increase the likelihood of firesetting for at-risk individuals.

The conceptual merging of the two phenomena of deliberate firesetting and copycat crime, therefore, is of both theoretical and pragmatic interest. The study of copycat firesetting provides an arena to examine the dynamics of copycat crime and to better

understand general copycat processes. It also provides a model for researchers to use to explore other types of copycat crime such as copycat mass shootings. Pragmatically, specific knowledge of copycat crime that leads to media content and presentation recommendations or at-risk offender targeted interventions would be useful on two fronts. First, knowledge of copycat firesetting would influence news content and inform associated guidelines regarding the coverage of deliberate firesetting. Second, better understanding of the content that is most likely to encourage emulation would inform individual level interventions (Cornell, Dill, Reding, Smith & Surette, 2011). With these imperatives in mind, the research questions for this paper are fourfold:

What do typologies of copycat crime and deliberate firesetting share in terms of commonalities?

What are the established and suspected correlates or precursors of each offender group and what would a "copycat firesetter" offender look like?

What characteristics emerge as pre-crime flags for copycat firesetters?

What existing recommendations from crime news coverage and deliberate firesetting can be applied to copycat firesetters?

The goal of the article is to summarize two sets of research and literature, extract what is shared versus unique between them, map one domain onto the other, and describe the hybrid "copycat firesetter".

Deliberate Firesetting

Deliberate firesetting is a general term used to describe a variety of behaviours which involve intentionally and maliciously setting a fire. The term arson, like rape and homicide, is a penal classification used in the legal system to refer to any firesetting behaviour intended to

cause harm, destruction or profit (DeHaan, 2002). The term “firesetter” will be used to describe the people who carry out these behaviours regardless of whether or not they are detected, apprehended or convicted.

The prevalence of deliberate firesetting is difficult to examine as it is clear that the “dark figure” of this behaviour is significant. For example, in 1990 the New South Wales Standing Committee on Arson estimated that, for every case of arson reported, 3.25 others went unreported (BOCSAR, 1990). Similarly, to conservatively account for the proportion of unreported cases the Australian Institute of Criminology assumed that for every case of arson recorded there were two more that were not recorded (Mayhew, 2003). It is reasonable to conclude, therefore, that there are a substantial number of firesetters who have never been convicted of the act of arson (e.g., Doley, 2009). Since this is the case, it is clear that recorded rates of arson will be conservative. Despite under-reporting, incendiary and suspicious fires still represent a major proportion of fires in Australia and the United States with upward trends indicated and serious societal impacts.

A limited set of survey research presents estimates of the percentage of the adult population who are deliberate firesetters. These studies provide an idea of how prevalent firesetting may be, regardless of whether or not these fires are noticed, detected, investigated, and resolved. Estimates of deliberate firesetting cluster at around 1 percent of the general adult population (with estimates as high as 11 percent when juveniles are included) (see Dickens & Sugarman, 2012; Flood-Page, Campbell, Harrington & Miller, 2000; Gannon & Barrowcliffe, 2011; Vaughn, Fu, DeLisi, et al., 2010). Even a one percent prevalence rate translates into a criminal activity displayed by hundreds of thousands of individuals. As suggested by Dickens and Sugarman (2012, p. 5) these data hint at the scale of a problematic

and harmful behaviour and, as such, it is important to determine who is at risk of carrying out such behaviours, when stimulated by preceding incidents of fire.

Correlates of Deliberate Firesetting

Arson is predominantly committed by males, a trend which is consistent with patterns of participation in criminal activity generally (Farrington, 1996). Deliberate firesetting is committed most often by adolescents, but this may be an artefact of a lack of criminal experience and resources, leading to these individuals being over represented in the criminal justice system. The background of most deliberate firesetters is consistently reported as deficient, with firesetters reported as typically being socially and educationally disadvantaged (Koson & Dvoskin, 1982; O'Sullivan & Kelleher, 1987), socially maladjusted (Geller, 1992; Inciardi, 1970; Rice & Harris, 1991), and substance abusers (Inciardi, 1970). Many firesetter samples are described as mentally deficient (Levin, 1976; Räsänen, Hirvenoja, Hakko, & Väisänen, 1994; Stewart, 1993; Vreeland & Levin, 1980).

Many of the personal correlates of arsonists (i.e., convicted firesetters) are similar for the general offender population and attempts have been made to categorize firesetters into various types in order to study them more comprehensively. Early efforts focused on developing typologies to describe the essential categories of deliberate firesetting and salient personal characteristics of the perpetrators. These classification systems were mostly based upon motive differences (Geller, 1992; Icove & Estepp , 1987; Lewis & Yarnell, 1951; Prins, 1994). The motives included in these typologies are often vandalism, excitement, revenge/jealousy, crime concealment, profit, extremist, delusional or some combination. Such typologies have been criticized as simplistic and not empirically derived (Dickens & Sugarman, 2012; Fritzon, Dolan, Doley, & McEwan, 2011; Gannon & Pina, 2010).

More recent efforts have approached the issue from a multi-factorial perspective, taking into account the biopsychosocial explanations for human behaviour. The most recent explanation of deliberate firesetting is the Multi-Trajectory Theory of Adult Firesetting (M-TTAF: Gannon, ÓCiardha, Doley & Alleyne, 2012). This framework provides a system useful for case formulation, clinical assessment and treatment. Instead of simply categorizing firesetters based strictly on the presence or absence of various motives, this model sought to separate deliberate firesetters based on four key issues associated with firesetting: inappropriate fire scripts/interest, offense supportive cognition, self/emotional regulation issues, and communication problems. In this way, firesetters can be classified into five trajectories including: antisocial cognition, grievance, fire interest, emotionally expressive/need for recognition, and multi-faceted. A summary is found in Table 1 and the trajectories are briefly described below.

Antisocial Cognition. Gannon and colleagues (2012) describe the antisocial cognition trajectory of the M-TTAF as one involving generally criminal cognitions, rather than ones related specifically to fire. As such, these behaviours often take place because of boredom or other criminal goals. According to the M-TTAF "individuals who take this trajectory toward firesetting are likely to regard criminal activity as their 'lifestyle', hold numerous antisocial peers, endorse criminal sentiments and values, and exhibit a host of antisocial and criminal activities and behaviours" (Gannon et al., 2012, p. 116).

Grievance. The Grievance trajectory is associated with many psychological issues related to self-regulation including aggression, anger and hostility. These individuals use fire to send a message regarding wrongs they perceive to have been perpetrated against them. The firesetting behaviour is an act of revenge or retaliation (Gannon et al., 2012). In these

cases, there may not be a strong fascination with fire, but it is used as a tool to exact revenge or express warnings to others.

Fire Interest. The Fire Interest trajectory captures those deliberate firesetters demonstrating curiosity with fire including paraphernalia and the aftermath. This classification does not require a diagnosis of pyromania. Setting fires may have become part of an emotional regulation system for these individuals, whereby stress and arousal leads to firesetting in order to reduce these feelings. Firesetters in this trajectory may also have issues with impulsivity and other self-regulation deficits. Unlike the Antisocial Cognition firesetters, it is posited that the Fire Interest deliberate firesetter do not necessarily hold other criminal attitudes. Rather, they possess a longstanding interest and identification with fire.

Emotionally Expressive or Need for Recognition. Gannon and colleagues (2012) describe the primary issue for these individuals is problems with communication, noting:

> Firesetters following the emotionally expressive trajectory are hypothesized to hold the additional critical risk factor of emotional regulation issues in the form of poor problem solving skills and impulsivity, such that, in the context of proximal triggers and contexts that place pressure on coping (e.g., death of a loved one, financial problems, depression), the individual feels unheard, unable to communicate core needs, and hopeless (Gannon et al., 2012, p. 117).

It is posited that two sub-types exits. In the first, the fire can be viewed as a "cry for help". The behaviour is undertaken to draw attention to their need for support and feeling of hopelessness. Firesetting in this trajectory within this sub-type may also be used to self-harm, especially in the female population. This is often associated with borderline personality disorder and acts as not only a way to get attention for unmet needs, but also as a mechanism for releasing pain that would otherwise be unexpressed.

The other subtype within this trajectory is the “need for recognition” type. Here the fire is still used to send a message, however, the firesetting is more covert. The firesetter plans the fire and seeks to remain undetected. They commonly gain the desired recognition through extinguishing the fire, saving others and so on. Similar to emotionally expressive firesetters, these individuals have trouble gaining desired attention and recognition using pro-social means. Personality problems such as narcissism may be an issue for this subtype, where the need for social recognition is sustained and long-standing (Gannon et al., 2012).

Multi-faceted. According to Gannon et al. (2012), this trajectory describes individuals who have developed problems around a number of elements associated with firesetting, including deficits in self/emotional regulation and communication skills, offense supportive attitudes and fire interest. For these individuals, firesetting is one part of antisocial and criminal behaviour that is likely to be repetitive, persistent and potentially dangerous. Gannon and colleagues note “a whole variety of potential motivators is likely to be associated with this trajectory. It is the combination of general criminality and inappropriate fire interest that will appear most prominent to the consulting clinician” (2012, p. 117-8).

Clearly, several different types of firesetting and firesetters are in existence. In order to assess arson as it relates to copycat or media-inspired crime, it is necessary to take note of these types, and address the potential for each type to be susceptible to imitating. To do so, we now turn to a discussion of the literature on copycat crime, before linking it with what we know about deliberate firesetters.

Table 1:

Summary of the key trajectories comprising the M-TTAF for arsonists

	Antisocial Cognition	Grievance	Fire Interest	Emotionally Expressive or need for recognition	Multi-faceted
Offense Characteristics	Context- opportunistic	Context- perceived wrong doing	Context- drawing attention to goals which cannot be achieved legitimately	Context- to self harm in an effort to draw attention to emotional distress	Various
Offender Characteristics	Males Juveniles Common in groups Known to authorities	Often victim is known to offender History of violence, threats in the relationship	Often serial offender Has a history of fire-related behaviour Personality disturbances	Psychiatrically disturbed Higher proportion of females	Various
Prominent Risk Factor	Offense supportive attitudes and values (supporting general criminality)	Self-regulation issues	Inappropriate fire interest/scripts	Communication problems	Offense supportive attitudes/values (supporting general criminality and firesetting) Inappropriate fire interest/scripts
Other risk factors	Self-regulation issues (e.g. Poor emotional modulation)	Communication problems Inappropriate fire script	Offense supportive attitudes (supporting firesetting)	Self-regulation issues (e.g., poor emotional modulation)	Self-regulation issues Communication problems
Potential Clinical Features	Antisocial values/attitudes Impulsivity Conduct Disorder or Antisocial personality disorder	Low assertiveness Poor Communication Fire-aggression fusion script Anger (rumination) Hostility	Fire fascination/interest Impulsivity Attitudes supporting fire	Poor communication Impulsivity Depression Fire-coping fusion script Personality traits/disorder	Pervasive firesetting/general criminal behaviour Fire fascination/interest Antisocial values/attitudes Conduct disorder or antisocial personality disorder
Potential motivators	Vandalism/boredom Crime Concealment/profit Revenge Retribution	Revenge/Retribution	Fire interest/thrill Stress/boredom	Cry for help Self-harm Suicide Need for recognition	Various

Adapted from Gannon et al., (2012, p. 113)

Copycat Crime

"Copycat", "imitation" and "contagion" are terms that have been used interchangeably to refer to behaviour inspired by a previously witnessed act. By standard definition, for a crime to be considered copycat, not only must there be an aspect of the original crime incorporated in its undertaking (such as in the choice of victim, motive, or technique) but, more significantly, there needs to be the key element of media publicity and exposure to the media content as a yoking mechanism between the crimes (Surette, 2011). That is, the key implied element of a copycat crime (as distinct from a non-copycat crime) is that, beyond mere similarities, the copycat crime would not exist in its current form without exposure by the copycat offender to intervening media content.

Traditionally research in this area has focused on the effect of suicide stories relayed in visual and print media on subsequent suicide rates. As a result, the impact of media reporting and portrayals of suicide incidents on actual suicide behaviour is widely recognized (O'Carroll & Potter, 1994; Phillips, Lesyna & Paight, 1992; Pirkis and Blood, 2001). While the exact nature of the effect has yet to be clarified, the evidence for a copycat generation of suicide appears to be substantial. The research literature on violent media content and aggressive behaviour also indicates the existence of a significant copycat crime phenomenon.

The most commonly advanced mechanism involves imitation, in which viewers learn values and norms supportive of aggression and violence; learn techniques to be aggressive and violent; or learn acceptable social situations and targets for aggression. Advocates of a stimulating effect feel that children, in particular, learn aggression the same way they learn other cognitive and social skills - by watching parents, siblings, peers, teachers, and others.

Accordingly, the more violence children see in media enactments, the more accepting they become of aggressive behaviour, and the more likely they are to act aggressively. This is particularly true when real world models of violence are also available (Surette, 2012b). Experimental studies confirm that visual media violence can lead to short-term imitation (Helfgott 2008; Wilson, Kunkel, Linz, Potter, Donnerstein, Smith, Blumenthal, & Gray,1997). It is not fully understood who is most likely to imitate media violence or under what conditions a violence-imitation effect will take place. In addition to the research on violent media and social aggression, there is additional indirect support for copycat effects from research on social diffusion (how behaviours spread through societies), imitation (how individuals come to biologically and psychologically copy behaviours), priming (cognitive processes that encourage copying), and social learning (how individuals learn behaviours in social settings), as well as media behavioural effects research.

In the same way that the manner in which the media might influence suicidal behaviour is still not clear, there is some doubt as to how a copycat effect might influence subsequent criminal behaviour. Currently, there are at least two competing models. In the first, exposure to criminogenic media content is seen as a direct cause of crime; in the second, the media are viewed as crime catalysts that shape rather than generate criminality.

In the first model the media trigger individuals to commit certain crimes as well as criminalize those who would otherwise be law-abiding citizens. In this manner, media reports of criminal actions influence the amount of crime that is committed via increased numbers of offenders and increased motivation to offend. The first model is represented by the ‘General Aggression Model’ advocated by Anderson, Gentile, and Buckley (2007). In this

perspective the media serve as trigger mechanisms. Applied to deliberate firesetting, reduced exposure to fire related media content would result in fewer fire-sets and less fire-related crime.

In the "media as catalyst" model, criminally disposed individuals driven by pre-existing motives perform a search of the media for crime instructions (Ferguson, Rueda, Cruz, Ferguson, Fritz & Smith 2008). In this model the expectation is that removing media exposure would not eliminate crimes as different forms of crime would still be committed. Applied to deliberate firesetting, reduced exposure to fire related media content would result in either different types of crime (vandalism rather than arson for example) or different types of firesetting (the use of different firesetting techniques or targets for example). Media provided crime models thus play significantly different roles in the two competing perspectives. In the first, exposure to crime models cause individuals to set fires that they would not otherwise set. In the second, exposure results in shaping firesetting that would have occurred in some fashion regardless.

Available evidence suggests that the association between exposure to media crime content and criminal behaviour is most often instructional, with the media functioning as crime catalysts rather than as motivational and functioning as crime generating triggers (although this could be an artefact of the adult offender populations commonly used in copycat research) (Surette, 2011). The media seem to, therefore, influence the quality of crime more than the quantity of crime. Supporting this thought, recent research has tended to support the media catalyst model (Ferguson, San Miguel, Garza, & Jerabeck 2012;

Ferguson, San Miguel, & Hartley 2009; Ferguson, et al., 2008; Grimes, Anderson & Bergen, 2008; Surette, 2012b).

Copycat Crime Prevalence

In the past there existed some controversy over whether evidence of copycat phenomenon is apparent (see Clarke & McGrath, 1992; Stack, 2000), however, recent reviews have argued for the existence of a substantial copycat crime rate (Surette, 2011). Anecdotal reports of copycat crimes, in combination with research on media-copied suicides and studies of the effects of news coverage, has established reasonable grounds that copycat crimes occur at a significant rate although that rate remains undetermined (Surette 2002, 2011, 2012a). As with deliberate firesetting, including arson, there exists a "dark figure" of hidden copycat crime and it is not clear what represents copycat incidents among current crime statistics.

While the prevalence of copycat crime among offenders has been estimated to be about one in four, the proportion of societal crime that is copycat is not known due to difficulties in studying the phenomena. First, copycat crime as a research question is seldom pursued and, when offenders are asked, a substantial number of copycat crime attempts are reported as undetected (Surette, 2012b). The lack of arrest lessens the likelihood of a number of copycat crimes being recognized as such. The anecdotal reports found in the media provide no estimate of copycat crime levels, as only the most newsworthy ones come to the fore. Furthermore, due to its nature, misidentification of copycat crime can occur when true copycat events go unrecognized and unreported due to significant temporal or geographical separation between the initial media portrayed crime and the following copycat crime. The study of copycat crime is also hindered by the danger of false positives, where crimes that

share elements with prior media content occur and are incorrectly linked together and labelled as copycats. A fire-related example is provided by the film "Money Train" which was incorrectly credited as the model for the arson homicide of a New York subway clerk (Cohen, 1999; Perez-Pena, 1995). There is also a concern with offenders retrospectively attributing the media as the source of their criminality when, at the time of their offense, there was in reality no media role. Offenders who may not understand why they committed a crime, or committed one for reasons they do want to admit, might credit the media as the cause. Conversely, there is the possibility that offenders may not recall the media as the source of their crime idea and attribute it to their own invention.

Unlike the study of crimes such as homicide, where determining which events are valid examples and which ones are not is relatively straightforward, because copycat crime requires the yoking of at least two crimes via media exposure, the differentiation of copycat and non-copycat events can be difficult. The result is that the proportion of crime that is copycat remains unknown and is perhaps unknowable. Copycat crime appears to be prevalent among offenders, but the copycat crime rate within a society is undetermined while speculated to be low (Helfgott, 2008; Surette 2012a). Estimates from offender surveys suggest that one in four offenders report copycat crime events in their history. When queried, however, few linked more than one or two of their lifetime crimes to media content (Pease and Love, 1984a; Surette, 2002, 2012b). Even if copycat crime is comparatively rare, due to the significant costs and damage caused by deliberately lit fires, understanding copycat firesetting, particularly if copying works to increase the success of deliberate firesetters in remaining undetected, is salient to society's well-being.

Correlates of Copycat Crime

As media yoked events, correlation of the media content and characteristics of the copiers of the content are important. One of the early points made by Pease and Love (1984b) regarding copycat crime was the necessity of obtaining information about the imitated perpetrator and crime (i.e., the media content), as well as characteristics of the copycat criminal in order to develop useful theory. A number of hypothesized correlates of copycat crime are suggested in the literature.

Media Content Correlates. Researchers have reported the suicide contagion effect to be modulated by demographic characteristics of the initial media portrayed victim so that a match between model and copier on age, race, and gender has been argued (Gould & Shaffer, 1986; Pirkis & Blood, 2001; Stack, 2000). Regarding media criminogenic content elements, the violent media and social aggression research suggests that content which reinforces criminality, contains numerous criminal role models, and teaches that crime is permissible, justified, explicitly rewarded, unpunished, devoid of consequences, involves guns and is portrayed as either realistic or humorous, will generate copycats (Wilson, Colvin & Smith 2002). Ironically, content that shows punishment of offenders can also sometimes enhance rather than lower imitation by increasing the social status of copiers and lowering the status of law enforcement agents (Bandura, 1973).

Characteristics of the criminal media model have also been forwarded as correlates. Criminal models have shown with positive pro-social motives, competent, heroic, same sex and similar ethnicity or race and age increase copycat impact (Bandura 1995; Wilson, Colvin & Smith 2002). The consequences of committing a crime on the media model are important. Immediate or inferred rewards to the model influence imitative behaviour with the success of the criminal model more important than whether the criminal behaviour is seen as good or bad (update Bandura, 1973 p. 86). Surette (2011, 2012b) and Hurley and Chater (2005)

provide overviews of copycat correlates that suggest media accounts deemed most likely to generate copycat crimes include some combination of successful, innovative, justified crimes, committed by positively portrayed offenders and include clear and explicit crime instructions.

Copier correlates. Similar to media content characteristics that have been forwarded as problematic, a set of copier characteristics have been speculatively linked to copycat crime (Hassan, 1995; O'Carroll & Potter, 1994). Foremost, a history of criminality has been flagged as significant (Heller & Polsky, 1976; Pease & Love, 1984b). Age, gender, exposure to real-world crime models, and listing either the Internet or video games as one's favourite media, have also been noted as correlates (Surette, 2002, 2012b). Interest in media crime content (particularly when a decision to commit a crime is already in place) is felt to increase copycat occurrences (Fisch, 2002; Rubin, 2002). A criminal history is also felt to increase the perception of one's criminal efficacy (the belief in one's ability to successfully copy a crime) (Bandura, 1995). Modulating the effect of a criminal history, the degree to which potential copiers have been previously rewarded or punished for criminal behaviour influences the extent to which imitative responses will occur (Rogers, 2003). In addition to offense histories, offenders with attitudes toward the media as influential on social behaviour and as useful sources of crime information have been seen as more prone to be copycat offenders (Heller & Polsky, 1976; Pease & Love, 1984a, 1984b; Surette, 2002, 2012b). In addition to holding certain attitudes, possessing certain personality characteristics has been forwarded as correlating with copycat activity. Relevant personality characteristics include low self-control (Akers, 1998), high innovativeness (Rogers, 2003), as well as disinhibition and sensation seeking (Haridakis, 2002). Lastly, for rare and violent crimes including some arsons, high interest in law enforcement, intense repeated media exposures, personal deterioration in socioeconomic status and social involvement accompanied by perceptions of

persecution and resentment have been linked (Bandura, 1973; Meloy & Mohandie, 2001). In sum, media content that portrays crime as rewarding, justified, and unchallenged to copiers with offense histories, pro-crime attitudes, and criminal environments has been correlated with self-reported copycat criminality.

Typology of Copycat Crime

Similar to the work done to classify firesetters into various types in order to facilitate more effective research, efforts have also been made to categorize copycat offenders. The first effort to develop a classification system of copycat criminals was by Pease and Love (1984b). Using a mix of personal characteristics, offense features and motive-related variables, these authors described four "types" of copycat criminals. The value of the system proposed by these authors, however, is undermined by the confounding of copycat crime and criminal characteristics across the four categories.

A six category copycat crime typology encompassing media, individual, crime and environmental dimensions is offered here in which media content is related to copycat crime in varied ways. As shown, important copycat crime elements are found in the characteristics of an imitated crime, the media role in the generation of the crime, and in the copycat offender's motivation for copying a crime. Thus, a copycat crime can be either instrumental or emotive. Copycat crimes can also be either media triggered genesis crimes, in which the media causes a new crime to occur, or media moulded metamorphic crimes, in which the media effect is to shape how a crime unfolds rather than causing it to exist. Copycat crimes can also differ by their underlying motivations. A crime can be copied with the goal of reducing the risk of apprehension and punishment or can be committed with the goal of generating media attention. In the former, the copier works to keep their copied crime unobserved and undiscovered, in the latter they work to attract media attention and maximize

a crime's newsworthiness. Fire related media content can therefore be instructional in two ways: providing lessons on how to conceal another crime such as homicide and reduce the risk of discovery and apprehension, or providing instructions on how to commit a firesetting act for which the motivation could be profit, revenge, or attention. The details of this system are outlined in Table 2.

Table 2:

Summary of the key categories comprising a copycat crime typology

	Crime type – instrumental	Crime type - emotive	Media role - genesis	Media role – metamorphic	Crime Motivation – risk reduction	Crime Motivation – media attention
Offense Characteristics	Goal directed crimes, profit or prestige. Common.	Reactive emotion driven, revenge, anger, rage driven Rare.	Media as a trigger, exposure causes new crime that would not occur otherwise. Rare.	Media as a rudder, exposure shapes form of crime that would occur regardless. Common.	Hidden and covert. Attempt to hide either crime or offender connection to the crime. Common.	Open and overt. Attempt to attract attention to crime or claim connection to the crime. Rare.
Offender Characteristics	Males Juveniles Career offenders	Males Juveniles Career offenders History of violence.	Trouble distinguishing reality from fiction. Identification with media crime models, history of mental illness.	Males Juveniles Career offenders.	Males Juveniles Career offenders	High need for fame personality trait
Prominent Risk Factor	Attitudes and values that support general criminality	Self-regulation issues	Inappropriate interest in crime and criminal scripts.	Criminal history	Attitudes and values supporting general criminality, inappropriate interest in crime and crime scripts	High need for fame, idealism

	Crime type – instrumental	Crime type - emotive	Media role - genesis	Media role – metamorphic	Crime Motivation – risk reduction	Crime Motivation – media attention
Other risk factors	Youth Gang membership. Self-regulation issues (e.g. poor emotional modulation)	Self-regulation issues (e.g., poor emotional modulation). Violent family and community environment	Crime supportive attitudes, disorganized interpersonal history.	Youth gang membership.	Self-regulation issues Communication problems, exposure to criminal models, recidivists	Attitudes and values supporting general criminality, inappropriate interest in crime and criminal scripts.
Clinical Features	Career property offender Antisocial values and attitudes	Career violent offender. Impulsivity Antisocial values and attitudes	Criminogenic media emersion, fascination with violent media, impulsivity.	Delinquency history, media emersion. Poor communication Impulsivity Depression Fire-coping fusion script Personality traits/disorder	High belief in credibility of media content, high self- efficacy in crime. Pervasive general criminal behaviour Antisocial values and attitudes	High need for recognition, conduct disorder or antisocial personality disorder Pervasive general criminal behaviour
Motivators	Material gain or increase in peer group social status.	Revenge/Retribution, Thrill, Stress, Boredom	Boredom, need for recognition	Cry for help Self-harm Suicide	White collar crime, street robbery, burglary, theft	Spectacle crimes, vandalism, suicide, bombings, terrorism

Risk factors common across all categories: per-existing criminal history, male, youth

The six types posited in Table 2 are not intended to represent mutually exclusive categories, in the usual way of firesetter typologies. Rather, this classification system is best conceived as three sets of dichotomies based around type, media role, and crime motivation. Based on a clinical assessment, arguably it is possible then to classify a copycat firesetter according to one aspect from set A (crime type), one from set B (media role), and one from set C (motivation). For instance, you can have an instrumental copycat crime that the media triggers (genesis) and that the copycat firesetter commits for media attention. Or you could have an instrumental copycat fire-set that the media shapes (metamorphic) and is committed to avoid arrest (risk reduction). The permutations equate to eight different "copycat crime firesetter" groups. In this paradigm, every copycat fire would be some combination of crime type, media role, and crime motivation. It is worth noting that the firesetting literature has largely moved away from classifying by motive alone. This is a result of increasing recognition that human behaviour is complex and the underlying drives for firesetting rarely can be distilled into one mutually exclusive motive category. However, as motivation is a central factor in copycat offending and there's good reason to believe that copycat firesetting motivated by risk reduction will be substantially different from fires motivated by media attention.

Copycat Crime and Deliberate Firesetting

Given that for a crime to be considered copycat there must be an aspect of the original crime incorporated in its undertaking, as well as the key element of media publicity and exposure to the media coverage as a yoking mechanism between the crimes, a copycat arson would be a deliberate act of firesetting whereby the behaviour would not exist in its current

form without exposure to a media portrayed fire. A copycat fire requires that an offender be inspired to commit an act of deliberate firesetting by fire related content which they saw portrayed in the media. The question becomes, are people who are prone to firesetting also at risk for these contagion effects, and if so, what types of deliberate firesetters are most likely to become copycats?

Copycat Firesetting Literature

Although claims of copycat firesetting are relatively common in the popular media, an extensive review of the literature has found few empirical studies exploring this issue. One exception is Morgan, Cook, Dorkins, and Doyle's (1995) analysis of several firesetting incidents which they claim represent a series of copycat arsons. Morgan et al. provide essentially a case study describing a series of 8 fires lit by 6 patients over a 23 day period across 2 wards of a psychiatric hospital. The brief statistical analysis reported in the study found the series of fires represented a statistically significant increase in the rate of accidental and malicious fires previously recorded. It was, however, unclear whether the comparison data related to only the two wards involved in the current series or included fire reports for the entire institution. Regardless, this type of statistical pattern, while potentially relevant for hospital administrators, is clearly not, in itself, suggestive of a copycat effect.

In their analysis and discussion, Morgan et al. (1995) fail to adequately demonstrate whether and how the fires lit by each of the six individuals studied are linked beyond the fact that all the fires occurred in one Unit (two wards) of the hospital and at a time when at least one of the previous arson offenders was an inpatient. The singular fact that several fires occurred in relative temporal proximity is not indicative of a copycat phenomenon operating. By definition, a copycat fire must demonstrate elements inspired from an earlier observed

firesetting act. In Morgan et al.'s (1995) study the description of both the initial and subsequent firesetting behaviour is limited and no attempt appears to have been made to establish points of similarity between the characteristics of either the offenders or their firesetting behaviour which might indicate a copycat effect. While there is the possibility this sequence of fires might represent a series of copycat acts of firesetting, it seems equally probable that it may simply be describing a series of sequential but independent firesetting events.

As a reference for copycat firesetting, clearly Morgan et al.'s (1995) study is problematic because it fails to adequately highlight an imitative link between the fires. While an extensive literature search failed to locate further studies of copycat arson, several media reports of alleged copycat fires exist. For example, an anecdotal and somewhat contrasting example of copycat arson comes from the Bronx New York in the late 1960s and early 1970s. According to Fritzon, et al, (2011), during this time several fires began to break out in run-down housing establishments in impoverished neighbourhoods. Apparently, it became evident to residents that the victims of these fires were being moved to better housing. As such, many more fires began to occur, seemingly for the purpose of having the offender's family relocated to a better environment. In this case, if these arsons were in fact copycats, the imitation of the firesetting came not because of a more expressive inspiration from the original fire, but from a much more rational, instrumental, means to an end assessment made by the offenders. That is, setting fire to one's own home worked beneficially for some individuals, so others learned that it may help them as well.

In the absence of further empirical evidence it becomes necessary to extrapolate from what is known about the characteristics of copycat offenders generally to determine the extent to which this phenomenon is likely to apply to the issue of deliberate firesetting.

Preliminary explorations suggested that there are media, offender, and cultural characteristics that work to predispose individuals to copycat behaviour. The following discussion will consider what is known about whom is at risk of a contagion effect, before examining the characteristics typical of deliberate firesetters generally to determine whether there is a synergy between the two bodies of knowledge.

The "At-Risk" Copycat Deliberate Firesetter

Overall, the general picture of the deliberate firesetter is one of an individual with significant maladaptive behavioural patterns, of which firesetting is but one. Extrapolating from the relevant research into variables associated with copycat crime it is hypothesized that individuals with a prior criminal history (particularly for property crime), low academic achievement, and high rates of media consumption would be vulnerable to an arson contagion effect. Reaching into related but non-copycat literature, links have been established between media and aggression particularly for individuals from low socio-economic backgrounds, who are young, angry, and have a poor academic record (Surette, 2002, 2012b). Many of these characteristics are relevant in a discussion of arsonists. The presence of one or more of these copycat correlates in the arsonist profile is suggestive of the possibility that, at the least, a sub-group of firesetters might exist who demonstrate a heightened susceptibility to a copycat effect.

Table 3 maps together the correlates of deliberate firesetting with the correlates of copycat offenders. In so doing, it becomes apparent that there are a number of characteristics which are common between the two. Not surprisingly these include non-specific criminality factors such as being a young male from a challenged background. However, there are also some more discriminating commonalities, including having a dysfunctional family history, such as criminogenic parents, as well as being socially disadvantaged through conditions

which increase the permissibility and functional value of crime. As alluded to above, experiencing income disparities and other detrimental social conditions are also risk factors.

The hypothesized copycat firesetter would be socially maladjusted, enjoying seeing laws broken and authority defied. They would believe that criminality can be effective for reaching their goals, and would also be generally disinhibited. Some of these individuals may similarly experience deficient mental functioning, including delusions, and perceptions of persecution or resentment. Together, these factors describe a potential copycat firesetter who has had a difficult life course, has many values supporting criminality and firesetting, is highly influenced by the media, and is maladjusted socially.

Using the categories posited under M-TTAF, the hypothesized copycat firesetter characteristics described here are most consistent with the Antisocial Cognition and the Multi-faceted firesetter. The Antisocial Cognition firesetter is posited to be a young male who offends opportunistically, with offense supportive values and attitudes, and self-regulation issues. These offenders are often motivated by crime concealment or profit, which speaks towards Surette's (2002, 2012b) notion of copycat behaviours increasing the quality of criminal behaviour, rather than the quantity.

The Multi-faceted firesetter has more heterogeneous characteristics, although offense supportive attitudes and values play a major role and speak to the likelihood of risk for copycatting and serial arson. As stated earlier, copycat offenders have been hypothesized to be individuals with prior criminal histories concentrated in property crime and with low academic achievement; traits which are consistent with the M-TTAF's Multi-faceted trajectory. This describes someone with pervasive criminal behaviour and demonstrating antisocial values, attitudes and conduct. The criminal protagonist in the film "Money Train" provides a media portrait of such an individual.

Although most similarities appear between the Antisocial Cognition or Multi-faceted firesetters and instrumental/risk reduction copycat offenders, several examples linking other types together are also in existence. For one, there may exist a Grievance subtype of copycat firesetter who uses imitative firesetting for emotive purposes. The copycat murder based on the 1984 film “The Burning Bed” would be an example of this, whereby a man set his wife on fire imitating a television movie. Another possibility is a Fire Interest firesetter who is an emotive or genesis style copycat offender. Examples would include some first time youth firesetters such as those who copied YouTube videos and “Beavis and Butthead” cartoon fire stunts (Margulies, 1993). It is also possible that Emotionally Expressive firesetters share links with metamorphic and emotive copycat offenders, with suicide immolation such as the recurring Tibetan Monk immolations providing an example (Parshley, 2012).

In summary, Table 3 highlights the distinct possibility that copycat effects for deliberate firesetters may go beyond simple news coverage of fire related stories. It needs to be acknowledged that copycat offenders are also likely to be influenced by portrayals of deliberate firesetting in fictional media as well. How firesetting (and fires as exciting events) is portrayed in entertainment is another possible policy intervention area.

Table 3:

Characteristics of a hypothesized Copycat Firesetter

	Deliberate Firesetter	Copycat Offender	Copycat Firesetter (hypothesized)
Definition	Deliberate firesetting	Influenced by the media coverage of another act	Deliberate firesetting inspired or instructed by the media coverage of another act
Correlates	A. Male B. Adolescents C. Personality *1. Deficient background* *2. Dysfunctional family history* *3. Educationally disadvantaged* *4. Socially disadvantaged* *5. Socially maladjusted* *6. Substance abuse* *7. Mentally deficient*	A. Male B. Young adults C. Personality *1. Criminally innovative* *2. Disinhibited* *3. Delusional* *4. High Interest in guns and law enforcement* *5. Persecution and resentment perceptions* *6. Intelligence mixed* *7. Dependent* *8. Enjoys seeing laws broken* *9. Enjoys seeing authority defied* *10. History of reward copying others* *11. Efficacy beliefs regarding criminality* *12. Inconsistent punishment history* D. Culture *1. Pervasive crime culture* *2. Supportive social conditions that increase permissibility of crime* *3. Social conditions that increase functional value of crime* *4. Crime rewarding, justified or unchallenged by significant others* *5. Criminogenic parents or guardians* *6. Racial Strife, income disparities and detrimental social conditions*	A. Male B. Adolescents/Young adults C. Emersion in media D. Deficient background/Dysfunctional family history; criminogenic parents or guardians; E. Socially disadvantaged; Supportive social conditions that increase permissibility of crime; Social conditions that increase functional value of crime; Racial Strife, income disparities and detrimental social conditions F. Socially maladjusted; disinhibited; enjoys seeing laws broken/authority defied; efficacy beliefs regarding criminality G. Mentally deficient; delusional; persecution and resentment perceptions
Typology	1. Antisocial Cognition 2. Grievance 3. Fire interest 4. Emotionally expressive or need for recognition 5. Multi-faceted	1. Genesis 2. Metamorphic 3. Instrumental 4. Emotive 5. Risk Reduction 6. Media Attention	1. Antisocial: instrumental; risk reduction 2. Grievance: emotive 3. Fire interest: emotive; genesis 4. Emotionally expressive: metamorphic; emotive 5. Multi-faceted: Genesis or Metamorphic; emotive; media attention

Interventions and Policy Recommendations

Collapsing and summarizing this literature, it is hypothesized that at-risk copycat firesetters would be characterized by: 1) media emersion, in which a single media source is heavily consumed and other social and interpersonal contacts are reduced; 2) efficacy beliefs related to criminal innovativeness and an offense history (the belief that one can successfully set a fire); and, 3) living in a culture, family and community environment that encourages and justifies the crime of arson. It is speculated that the combination of these individual and situational factors puts one at a high risk of copying media portrayed acts of deliberate firesetting. Should the hypothesized substantial copycat effect be found for firesetting behaviour, there are well-considered steps that can be taken to reduce the risk to people with a firesetting propensity.

Concerning news coverage, there are a range of strategies designed to prevent contagion which do not necessarily involve the exclusion of all news coverage, but rather concentrate on modifying specific aspects of media reporting that influence the imitation effect. Arising mainly from the suicide contagion research, a series of guidelines for journalists and editors reporting suicide stories have been developed (Gould, Wallenstein, & Davidson, 1989). Recommendations for the reporting of some crime types, such as terrorism, have also been proposed, although in a less comprehensive and more informal manner (e.g., Munday, 1994). But herein lies a contentious issue. Efforts to minimize a contagion effect may easily be misunderstood. Advocating media guidelines for reporting opens a Pandora's box of media ethical issues and censorship allegations (Hurst & White, 1994). Hassan (1995) acknowledges the delicacy of such negotiations in connection to the reporting of suicide when he writes: "In a pluralistic democratic society, the media must report public interest stories and should not be subject to censorship; however, bearing in mind the possible

impact of media reports on vulnerable people, a more careful and sensitive approach to reporting suicide may reduce this impact" (p. 483).

In addition to news coverage of fire setting and fire events, content found in entertainment media is also a concern. Fire related entertainment media content need not show deliberate firesetting to have a copycat firesetting effect. Table 4 offers a typology of popular fire related entertainment portraits commonly found in entertainment media and speculated to be linked to deliberate firesetting: "spectacle fires", "revenge fires", "concealment fires", "expiation fires" and "profit files". As conceived portraits of spectacle fires would be attractive to arsonists who desire fame or acknowledgement generated from being the cause of a spectacular social event (fires set by the terrorist group Animal Liberation Front would be examples) or who want to remain hidden and simply observe the fire and response. Entertainment portraits of the employment of fire for revenge would provide models of a means of not only obtaining revenge but instructions on firesetting. Concealment fires would be additional sources for firesetting instructions and for those looking to hide a crime while expiation fires would be motivational for those looking for moral justification for firesetting. Portrayals of profit fires would lastly provide models and instructions for arsonists seeking monetary returns from their acts.

Table 4:

A Typology of Entertainment Media Portraits of Fire and Associated Copycat Arsonist

Portrait Type	Description	Movie Example	Hypothesized Attracted Copycat Arsonist	Real World Example
Spectacle Fires	Large, dramatic fires that cause widespread social disruption and damage, not necessarily arson but portrays fire as exciting event. Context-opportunistic	Backdraft, Bambi, Reign of Fire	Antisocial, Grievance, Fire Interest	U.S. based terrorist group, Animal Liberation Front, burning of commercial developments.
Revenge Fires	Fire portrayed as a means to right wrongs and extract revenge	Frankenstein, The Patriot	Antisocial, Grievance	Burning of homes to prevent ex-spouse attaining.
Concealment Fires	Fire shown as a way to hide crimes or destroy evidence.	Unthinkable, For the Defence	Antisocial, Grievance	Burning of structures to destroy evidence of a homicide.
Expiation Fires	Fire portrayed as cleansing or God directed.	Joan of Arc, Return of the King	Emotionally Expressive	Self-immolations by religious protestors, burning of houses of worship.
Profit Fires	Fire portrayed as a tool to acquire money.	Money train, Arson Inc.	Antisocial	Burning of "underwater" mortgage houses to escape debt.

Multi-faceted copycat arsonists are hypothesized to be potentially attracted to all five media portraits.

Regardless of the controversy of news censorship and the portrayal of firesetting in entertainment, some simple steps can be taken to minimize the risk of copycatting when it comes to deliberate firesetting behaviour. First, the initial fire should not be kept in the spotlight. To the degree possible, news agencies should be requested to limit visual images, perpetrator focused content, perpetrator statements or interviews, extended coverage, and comparisons to past infamous fires or arsonists. All these efforts together will help reduce

copycat fires from occurring by limiting the positive media consumption associated with the behaviour and reducing instructional content availability. Prevention efforts should also focus on encouraging the news media to avoid criminogenic firesetting media content. Reports of fires should avoid accounts that glorify or justify the crime, or provide instructions. The reduction of at-risk copycat firesetter populations can result from a combination of media and criminal justice literacy efforts in order to pre-emptively debunk erroneous crime and justice information. Firesetters can have mistaken perceptions of the criminal justice system, their real-world risk of apprehension, and the consequences of their acts. Criminogenic media content will be defused by: 1) Pointing out inconsistent and speculative content regarding the initial crime; 2) Discussing crime's true aftermaths (victims portrayed positively, offenders negatively and denied folk hero status); and, 3) Discussing the high likelihood of failure, arrest, and punishment for similar crimes and the negative consequences on the family, friends and future of copycat offenders (Cornell, et al., 2011). However, it is important that before calls for changes to media reporting of fires, carefully established scientific evidence is collected to specify a copycat firesetting effect. There may also be important implications for the treatment of firesetting should a substantial contagion effect be found for firesetters. In that case, a focus on the role of the media in promoting and perpetuating the individual's firesetting behaviour cycle is recommended. At this time, while suspected, there is insufficient evidence to determine whether or not a substantial contagion effect operates for deliberate firesetting behaviour.

Conclusion

Specific research into copycat crime lies at the crux of the concern over criminogenic media exposure and copycat firesetting. Yet empirical studies in this area remain sparse. Research that simultaneously examines the role of real world and media provided crime

models relating to firesetters and firesetting behaviour would be valuable. If there is a consensus regarding the nature of copycat crime, it is that a media criminogenic influence concentrates in pre-existing criminal populations (Surette, 2011). An extension to the study of the association between real world firesetting and media modelled firesetting is apparent. Surveys to establish the existence and prevalence of copycat firesetting are needed. Follow-up in-depth interviews with identified copycat firesetters to specify media-offender-arson model dynamics would be valuable. Determining whether the media are a cause or catalyst is also important for public policy. If media exposure emerges as a direct cause of deliberate firesetting, broad based public policies focused on controlling content and access would be arguable. If the media are catalysts, an emphasis on at-risk individuals to reduce the likelihood of post exposure firesetting would make sense.

Given what we know about the prevalence of copying behaviours, it is plausible that there is a contagion effect operating for deliberate firesetting. The media would be motivational for those who would not have committed a crime otherwise and instructional for those determined to commit a crime with a media firesetting model moulding their crime. Difficulties in accessing suitable firesetter samples and in constructing appropriate and effective copycat research methodologies should not dissuade investigators from taking a closer look at the issue of copycat firesetting behaviour. The current discussion is a starting point, designed to show where the characteristics of firesetters and copycat offenders may overlap, and how future research is necessary to determine the prevalence of copycat behaviours in deliberately set fires.

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